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10/762,972	01/22/2004	Annie O. Chen	MOTO BCS03214	6354

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EXAMINER

IDOWU, OLUGBENGA O

ART UNIT	PAPER NUMBER
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2621

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/762,972

Applicant(s)

CHEN ET AL.

Examiner

Olugbenga O. Idowu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is responsive to application No. 10/762972 filed on January 23, 2004. Claims 1 – 20 are pending and have been examined.

Specification

2. The disclosure is objected to because of the following informalities: In paragraph 24, "comprise" is used instead of --comprise--. In paragraph 27, Fig. 5, 516 is referred to but there is no "516" in the figure.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 14 recites the limitation "said satellite" in the broadcast system. There is insufficient antecedent basis for this limitation in the claim. For the purposes of examination, the examiner will interpret "said satellite" as a satellite.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-20 are being rejected under 35 U.S.C. 102(e) as being anticipated by Fichet et al. U.S. Patent #: 7092729/ Fichet hereafter.

Fichet teaches:

As per **claim 1**, A method of providing access protection in a digital television distribution system (Fig. 1 is of a conventional digital television system that has access protection systems 15 and 16) having a master headend (4) and at least one local headend (13), comprising: defining first authorization data (Entitlement control message(ECM), col. 7, line 15) associated with content services (programs, col. 6, line 10), (ECM, this is a message sent in relation with one scrambled program, col. 7, lines 15- 16); protecting said content services at said master headend (Programs transmitted by the system (multichannel system, col. 5, line 58) are scrambled at the multiplexer 4, col. 6, lines 10-11); protecting said first authorization data at said master headend (In

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this unit(referring to unit 46 attached to multiplexer 4), an ECM is generated, encrypted, col. 7, lines 19 -22); and generating digital transport

stream data from said protected content services and said protected authorization data (the multiplexer 4 receives electrical signals comprising...encrypted ECMs from the second encrypting unit...The multiplexer scrambles the programs and transmits the scrambled programs, the encrypted EMMs and the encrypted ECMs, col. 7, lines 31 - 42) for transmission to each said at least one local headend (The receiver/decoder receives the broadcast signals, col. 7, line 43).

As per **claim 2**, The method of claim 1, further comprising: defining second authorization Data (Entitlement Management Message (EMM), col. 8, line 14) associated with said digital transport stream data (The multiplexer 4 scrambles the programs and transmits the scrambled programs, the encrypted EMMs and the encrypted ECMs as electric signal to broadcast system, col. 7, lines 34 - 42); and multiplexing said second authorization data with said digital transport stream data (the multiplexer 4 scrambles the programs and transmits the scrambled programs, the encrypted EMMs and encrypted ECMs, col. 7, lines 34- 36)

As per **claim 3**, The method of claim 1, wherein said first authorization data comprises first entitlement management messages (access criteria, The control word and the access criteria are used to build an entitlement control message(ECM), col. 7, lines 4 - 13) configured to authorize set-top boxes for viewing said content services(Access

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criteria... thus getting the rights to watch every channel inside those bouquet, col. 7, lines 4 -13), and wherein said step of protecting said content services comprises encrypting(scramble, col. 6, line 11) said content services.

As per **claim 4**, The method of claim 3, wherein said step of protecting said first authorization data comprises: generating at least one service in response to said first entitlement management messages(access criteria are used to build an Entitlement Control Message, col. 7, lines 14-15; to build is seen here as a service); and encrypting said at least one service to generate encrypted service data(ECM is generated and encrypted, col. 7, lines 21).

As per **claim 5**, The method of claim 4, further comprising: defining second entitlement management messages (control word, col. 7, line 1) configured to authorize receiver circuitry of each said at least one local headend for decrypting one or more services (the control word is generated internally and enables the end user's integrated receiver/decoder to descramble the program, col. 7, lines 1-3) of said encrypted service data; and multiplexing said second entitlement management messages with said digital transport stream data(the multiplexer 4 scrambles the programs and transmits the scrambled programs, the encrypted EMMs and the encrypted ECMs(control word and access criteria), col. 7, lines 31 – 42, col. 7, lines 21-22).

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As per **claim 6**, The method of claim 5, further comprising: modulating a carrier with said digital transport stream data (demodulator 252 for receiving and demodulating the broadcast signal, col 12, lines 17 – 18, broadcast signal is the signal that contains the program, col. 7, lines 43-44; the programs had to be modulated at a point for it to get demodulated); transmitting said carrier (The EMM is then transmitted in the broadcast signal for reception by the receiver/decoder 13, col. 12, lines 13- 15) to each said at least one local headend via a shared distribution medium (transmission of data are of course possible, such as cable transmission, col. 5, lines 44 – 47); demodulating said carrier at each said at least one local headend to recover said digital transport stream data (the demodulated signal is passed to the demultiplexer 254, which separates the various components of the signal, col. 12, lines 16 -25) ; and decrypting one or more services (Demultiplexer/Descrambler Fig. 7, block 254) of said encrypted service data in response to said second entitlement management messages(control word for descrambling of data, col. 6, line 16).

As per **claim 7**, The method of claim 6, further comprising: modulating a second carrier with said digital transport stream data (the MPEG-2 stream is decompressed and translated into a video signal, col. 7, lines 55 - 56); and transmitting said second carrier over a cable transmission path to set-top boxes (into a video signal for onward transmission to a television set 14, col. 7, lines 55-56; transmission of data are of course possible, such as cable transmission, col. 5, lines 44 – 47, television having a receiver/decoder integrated therein, col. 5, line 57).

As per **claim 8**, An apparatus for providing access protection in a digital television distribution system(Fig. 1 is of a conventional digital television system that has access protection systems 15 and 16) having a master headend (4)and at least one local headend(13), the apparatus comprising: a first conditional access system (encrypting unit 42, col. 7, line 20) for defining first authorization data(Entitlement control message(ECM), col. 7, line 15, the access criteria and the control word are transmitted to the second encrypting unit 42, in this unit, an ECM is generated, col. 7, lines 14-22) associated with content services(programs, col. 6, line 10) (ECM, this is a message sent in relation with one scrambled program, col. 7, lines 15- 16); a first encryption unit, disposed in said master headend, for encrypting said content services(Programs transmitted by the system (multichannel system, col. 5, line 58) are scrambled at the multiplexer 4, col. 6, lines 10-11); a second encryption unit(unit 42, Fig. 2), disposed in said master headend, for encrypting said first authorization data(In this unit(referring to unit 42 attached to multiplexer 4), an ECM is generated, encrypted, col. 7, lines 19 - 22); and a multiplexer for multiplexing said encrypted content services and said encrypted first authorization data to generate digital transport stream data (the multiplexer 4 recieves electrical signals comprising...encrypted ECMs from the second encrypting unit...The multiplexer scrambles the programs and transmits the scrambled programs, the encrypted EMMs and the encrypted ECMs, col. 7, lines 31 - 42) for transmission to each said at least one local headend(The receiver/decoder receives the broadcast signals, col. 7, line 43) over a shared distribution medium

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(transmission of data are of course possible, such as cable transmission, col. 5, lines 44 – 47).

As per **claim 9**, The apparatus of claim 8, further comprising: a second conditional access system (SAS 30, col. 8, line 1) for defining second authorization data(Entitlement Management Message (EMM), col. 8, line 14, SAS 30 which imply modification to or creation of Entitlement Management Messages, col. 8, line 1) associated with said digital transport stream data(The multiplexer 4 scrambles the programs and transmits the scrambled programs, the encrypted EMMs and the encrypted ECMs as electric signal to broadcast system, col. 7, lines 34 - 42); where said multiplexer multiplexes said second authorization data with said digital transport stream data(the multiplexer 4 scrambles the programs and transmits the scrambled programs, the encrypted EMMs and encrypted ECMs, col. 7, lines 34- 36)

As per **claim 10**, The apparatus of claim 8, wherein said first authorization data comprises first entitlement management messages (access criteria, The control word and the access criteria are used to build an entitlement control message(ECM), col. 7, lines 4 -13) configured to authorize set-top boxes for viewing said content services (thus getting the rights to watch every channel inside those bouquet, col. 7, lines 4 -13).

As per **claim 11**, the apparatus of claim 10, further comprising: a second multiplexer for multiplexing said first entitlement management messages with control data to generate at least one service (The access criteria and control word are transmitted to

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the second encrypting unit 42 via the linkage 46. In this unit, an ECM is generated, col. 7, lines 19 -21); where said second encryption unit encrypts said at least one service to generate encrypted service data (In this unit(42) the ECM is generated, encrypted and transmitted o to the multiplexer, col. 7, lines 21 -22).

As per **claim 12**, The apparatus of claim 11, further comprising: a second conditional access system(SAS 30, col. 8, line 1) for defining second entitlement management(Entitlement Management Message (EMM), col. 8, line 14, SAS 30 which imply modification to or creation of Entitlement Management Messages, col. 8, line 1) messages configured to authorize receivers of each said at least one local headend for decrypting one or more services of said encrypted service data(Access criteria... thus getting the rights to watch every channel inside those bouquet, col. 7, lines 4 -13) wherein said multiplexer multiplexes said second entitlement management messages with said digital transport stream data(the multiplexer 4 scrambles the programs and transmits the scrambled programs, the encrypted EMMs and the encrypted ECMs(control word and access criteria), col. 7, lines 31 – 42, col. 7, lines 21-22).

As per **claim 13**, The apparatus of claim 8, wherein said shared distribution medium comprises at least one of a satellite link, a terrestrial broadcast link (terrestrial broadcast, col. 5, line 45), a fiber distribution medium, and the Internet.

As per **claim 14**, A digital television distribution system (Fig. 1 is of a conventional digital television system), comprising: a master headend(4) for transmitting television

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signals over a shared distribution medium (cable transmission, col. 5, line 46), said master headend comprising: a first conditional access system(encrypting unit 42) for defining first authorization data(Entitlement control message(ECM), col. 7, line 15, the access criteria and the control word are transmitted to the second encrypting unit 42, in this unit, an ECM is generated, col. 7, lines 14-22) associated with content services(programs, col. 6, line 10) (ECM, this is a message sent in relation with one scrambled program, col. 7, lines 15- 16); a first encryption unit for encrypting said content services(Programs transmitted by the system (multichannel system, col. 5, line 58) are scrambled at the multiplexer 4, col. 6, lines 10-11); a second encryption unit(Unit 42, Fig. 2) for encrypting said first authorization data(In this unit(referring to unit 42 attached to multiplexer 4), an ECM is generated, encrypted, col. 7, lines 19 -22); a multiplexer for multiplexing said encrypted content services and said encrypted first authorization data to generate digital transport stream data(the multiplexer 4 receives electrical signals comprising...encrypted ECMs from the second encrypting unit...The multiplexer scrambles the programs and transmits the scrambled programs, the encrypted EMMs and the encrypted ECMs, col. 7, lines 31 - 42); and a modulator for modulating a carrier with said digital transport stream data(demodulator 252 for receiving and demodulating the broadcast signal, col 12, lines 17 – 18, broadcast signal is the signal that contains the program, col. 7, lines 43-44; the programs had to be modulated at a point for it to get demodulated); and a local headend(Fig. 1, 13) for receiving said television signals from said satellite(Fig. 1, 12), said local headend comprising: a demodulator(Fig. 7, 252) for demodulating said carrier to recover said

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digital transport stream data; and a decoder(Smartcard 48... the daughter smart 48 controls whether the end user has the right to decrypt the ECM and to access the program, col. 7, lines 43-57) for decrypting said first authorization data.

As per **claim 15**, The system of claim 14, wherein said master headend further comprises: a second conditional access (SAS 30, col. 8, line 1) system for defining second authorization data(Entitlement Management Message (EMM), col. 8, line 14, SAS 30 which imply modification to or creation of Entitlement Management Messages, col. 8, line 1) associated with said digital transport stream data(The multiplexer 4 scrambles the programs and transmits the scrambled programs, the encrypted EMMs and the encrypted ECMs as electric signal to broadcast system, col. 7, lines 34 - 42); where said multiplexer multiplexes said second authorization data with said digital transport stream data(the multiplexer 4 scrambles the programs and transmits the scrambled programs, the encrypted EMMs and encrypted ECMs, col. 7, lines 34- 36).

As per **claim 16**, The system of claim 14, wherein said first authorization data comprises first entitlement management messages (Access criteria, col. 7, lines 4 -13) configured to authorize set-top boxes for viewing said content services (Access criteria... thus getting the rights to watch every channel inside those bouquet, col. 7, lines 4 -13).

As per **claim 17**, The system of claim 16, wherein said master headend further comprises: a second multiplexer for multiplexing said first entitlement management

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messages with control data to generate at least one service(The access criteria and control word are transmitted to the second encrypting unit 42 via the linkage 46. In this unit, an ECM is generated, col. 7, lines 19 -21); where said second encryption unit encrypts said at least one service to generate encrypted service data(In this unit(42) the ECM is generated, encrypted and transmitted o to the multiplexer, col. 7, lines 21 - 22).

As per **claim 18**, The system of claim 17, wherein said master headend further comprises: a second conditional access system (SAS 30, col. 8, line 1) for defining second entitlement management messages(Entitlement Management Message (EMM), col. 8, line 14, SAS 30 which imply modification to or creation of Entitlement Management Messages, col. 8, line 1) configured to authorize said decoder of said local headend for decrypting one or more services of said encrypted service data(Access criteria... thus getting the rights to watch every channel inside those bouquet, col. 7, lines 4 -13) wherein said multiplexer multiplexes said second entitlement management messages with said digital transport stream data(the multiplexer 4 scrambles the programs and transmits the scrambled programs, the encrypted EMMs and the encrypted ECMs(control word and access criteria), col. 7, lines 31 – 42, col. 7, lines 21-22).

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As per **claim 19**, The system of claim 14, wherein said shared distribution medium comprises at least one of a satellite link, a terrestrial broadcast link (terrestrial broadcast, col. 5, line 45), a fiber distribution medium, and the Internet.

As per **claim 20**, An apparatus for providing access protection in a digital television distribution system((Fig. 1 is of a conventional digital television system that has access protection systems 15 and 16) having a master headend (4) and at least one local headend(13), the method comprising: means for defining first authorization data(the access criteria and the control word are transmitted to the second encrypting unit 42, in this unit, an ECM is generated, col. 7, lines 14-22) associated with content services(programs, col. 6, line 10) (ECM, this is a message sent in relation with one scrambled program, col. 7, lines 15- 16); means for protecting said content services at said master headend(Programs transmitted by the system (multichannel system, col. 5, line 58) are scrambled at the multiplexer 4, col. 6, lines 10-11); means for protecting said first authorization data at said master headend(In this unit(referring to unit 42 attached to multiplexer 4), an ECM is generated, encrypted, col. 7, lines 19 -22); and means for generating digital transport stream data from said protected content services and said protected authorization data for transmission to each said at least one local headend over a shared distribution medium (the multiplexer 4 recieves electrical signals comprising...encrypted ECMs from the second encrypting unit...The multiplexer scrambles the programs and transmits the scrambled programs, the

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encrypted EMMs and the encrypted ECMs as electric signals to broadcast system 54 which may be for example the satellite system shown in Fig. 1, col. 7, lines 31 – 42).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olugbenga O. Idowu whose telephone number is 571 270 1450. The examiner can normally be reached on Monday to Friday, 7am -5pm Est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edourd can be reached on 571 272 7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

O.I. 10/24/06



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